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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/266,202 03/10/99 REITZ

H N19.12-0024

EXAMINER

MMC2/0523

WESTMAN, CHAMPLIN & KELLY
SUITE 1600 INTERNATIONAL CENTRE
900 SECOND AVENUE SOUTH
MINNEAPOLIS MN 55402-3319

LEE, K

ART UNIT

PAPER NUMBER

2832

DATE MAILED:

05/23/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/266,202

Applicant(s)

REITZ ET AL.

Examiner

Kyung S. Lee

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-9 and 25-35 is/are pending in the application.
- 4a) Of the above claim(s) 31-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-9 and 25-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. This application contains claims 31-35 that are drawn to an invention nonelected with traverse in Paper No. 15. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Applicants request for reconsideration for claims 31-35. Applicants state that "little additional effort would be required" for the examination of claims 31-35. This is not found persuasive because claims 31-35 are drawn to display devices, such as a CRT or a flat panel display classified in class 313. Because of their recognized divergent subject matter the restriction requirement is proper. Additionally, a new search for the divergent subject matter is required for examination of claim 31-35. This would place a serious burden on the examiner by the Applicants.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhargava (5,455,489) in view of Jaskie (5,442,254).

Bhargava teaches ZnO (group II-VI, semiconductor), ZnS and Y₂O₃ (col. 2, lines 4-32) are all suitable for quantum contained phosphors. Bhargava teaches the claimed invention except for particles size range as claimed.

Jaskie teaches a device comprising phosphor particles having an average diameter of less than 100 nm (abstract) wherein the particle size is selected as desired. Jaskie further teaches that the specification of a desired particle range is within the skill of the art (col. 7, lines 34-40).

Jaskie teaches the claimed invention except for the range of the phosphor particles.

It would have been obvious to specify a desired particle range since the specification of a desired particle range is recognized to be within the skill of the art.

Regarding claims 2-5 and 25-26, Jaskie teaches the in col. 6, lines 46-49, the particle size of approximately 5nm. Such range meets the limitation of "a diameter greater than about three times the average diameter..."

3. Claims 1, 7-9, 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iga et al. (5,770,113) in view of Jaskie.

Iga et al. teaches a varistor formed with powdered ZnO particles having the average particle size of 50 nm to 500 nm (col. 10, lines 3-35). Iga et al. teaches a stoichiometry of ZnO and ZnO₂. Further, the metal oxide of Iga et al. includes Bi₂ O₃. Iga et al. teaches the claimed invention except for the particle distribution range as claimed (claim 1).

Jaskie teaches that the specification of a desired particle distribution range is within the skill of the art (col. 7, lines 34-40).

It would have been obvious to specify a desired particle range since the specification of a desired particle range is recognized to be within the skill of the art.

Response to Arguments

4. Applicant's arguments with respect to claims 1-5, 7-9 and 25-35 have been considered but are moot in view of the new ground(s) of rejection.


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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung S. Lee whose telephone number is (703) 306-9060. The examiner can normally be reached on 6:30 AM to 3:00 PM.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Kyung S. Lee
Examiner
Art Unit 2832


KL
May 20, 2001


KARL D. EASTHOM
PRIMARY EXAMINER